

REMARKS/ARGUMENTS

Claims 5, 8, 11, 17, 18, 24, 25, 27, 32, 34-42, 45, 47, 48, 53 and 54 are now pending. Claims 5, 8, 24, 25, 27, 34, 40-42, 45, 47, 48 and 53 were rejected. Claims 17 and 18 were allowed and claims 11, 32, 35-39 and 54 were objected to. Claims 5, 11, 24, 32, 34, 35, 45 and 54 were amended. Reexamination and reconsideration of the pending claims are respectfully requested.

First Rejection under 35 U.S.C. §102(e)

In the Office Action, claim 5 was rejected under 35 U.S.C. §102(e) as being anticipated by Kambara et al. (U.S. Patent No. 6,288,220 B1). Such rejections are respectfully traversed in part and overcome in part for the following reasons. Claim 5 as amended now includes the element of "the first spectrum having a plurality of signals at differing wavelengths" and "the second spectrum having a plurality of signals at differing wavelengths." The plurality of signals at differing wavelengths makes the method particularly well-suited for identifying particulate probes or "beads" which have been released in a fluid so as to perform a multiplexed assay. Identification of the beads using standard inventory systems may be problematic because the beads can be quite small and may have differing analytical properties. Therefore, spectrally labeling the beads with materials that generate identifiable spectra in response to an excitation energy allow the beads to be identified within a fluid.

The Kambara et al. reference describes a fixed DNA probe (Abstract) manufactured for identifying specific target DNA fragments (col. 1, lines 46-54). DNA fragments are labeled with a tag such as a fluorophore and fluorescence or luminescence is used for the detection (col. 1, lines 54-56). Kambara et al. describes "DNA probes 2 and sample DNA's having a fluorophore tag 8 attached thereto...followed by irradiation with light, the kinds of DNA's in a specimen can be known from the fluorescence emitted." (col. 8, lines 17-22). Each fluorophore tag has a single wavelength. For example, "the fluorophore tag includes Texas Red (maximum emission wavelength: 615 nm), fluorescein isocyanatae (maximum emission wavelength: 520 nm), etc." (col. 10, lines 38-40). Because the DNA probes in Kambara et al.

are labeled with a single tag with a single wavelength, the cited reference fails to teach the element of a spectrum having a plurality of signals at differing wavelengths.

A single cited reference must teach each and every element of the claim to establish anticipation under 35 U.S.C. §102. Absent some hint or suggestion of a spectrum having a plurality of signals at differing wavelengths, the present invention as claimed is patently distinguishable from the cited reference. For this reason, Applicants respectfully request withdrawal of this rejection and the allowance of claim 5.

Second Rejection under 35 U.S.C. §102(e)

Claims 34 and 40 were rejected under 35 U.S.C. §102(e) as being anticipated by Kambara et al. (U.S. Patent No. 6,288,220 B1). Such rejections are respectfully traversed in part and overcome in part as follows. Claim 34 as amended recites the element of "the spectrum having a plurality of signals at differing wavelengths." As previously discussed above, this element is not taught by Kambara et al. Because the cited reference fails to teach each and every element of the claim, anticipation under 35 U.S.C. §102(e) cannot be established. Applicants therefore respectfully request the withdrawal of this rejection and allowance of claim 34 and 40 which depends therefrom.

Third Rejection under 35 U.S.C. §102(b)

Claim 45 was rejected under 35 U.S.C. §102(b) as being anticipated by Ulmer (U.S. Patent No. 5,776,674). Such rejections are respectfully traversed in part and overcome in part as follows. Claim 45 now recites the element of "a plurality of bodies released in a fluid, the bodies having labels for generating identifiable spectra, the spectra having a plurality of signals at differing wavelengths." As discussed previously, the plurality of signals at differing wavelengths makes the system particularly well-suited for identifying particulate probes or "beads" which have been released in a fluid so as to perform a multiplexed assay.

Ulmer describes biochemical processing in thin films (Ulmer, Abstract) and laser stimulation of fluorescence for identification (col. 7, line 66 - col. 8, line 1). In Ulmer, a fluorescence spectroscopy system is used to repeatedly excite each nucleotide into fluorescence and a detector measures the delay in arrival time of the single fluorescent photon after each laser pulse. By doing this numerous times for each nucleotide to be detected, it is possible to

accumulate a large statistical sample of single fluorescent photon events from which the fluorescent half-life of each nucleotide can be determined. This is then compared to known nucleotide half-lives thereby permitting identification (col. 10, lines 46-61). Therefore, Ulmer uses a different method of identification and fails to teach "bodies having labels for generating identifiable spectra, the spectra having a plurality of signals at differing wavelengths." Because the cited reference fails to teach or suggest each and every element of amended claim 45, it is patently distinguishable from Ulmer. For these reasons, Applicants respectfully request withdrawal of the rejection and allowance of claim 45.

Fourth Rejection under 35 U.S.C. §103

Claims 8, 41 and 42 were rejected under 35 U.S.C. §103 as being unpatentable over Kambara et al. (U.S. Patent No. 6,288,220 B1). Such rejections are respectfully traversed in part and overcome in part for the following reasons. Claim 8 depends from independent claim 5 which has been previously distinguished from the cited reference. Claims 41 and 42 depend from independent claim 34 which also has been distinguished from Kambara et al. Therefore, all the claimed elements are not set forth or reasonably suggested in the reference relied upon. Claims 8, 41 and 42 are patently distinguishable from the cited reference and Applicants respectfully request withdrawal of the rejection and allowance of claims 8, 41 and 42.

Fifth Rejection under 35 U.S.C. §103

Claims 24-25, 27 are rejected under 35 U.S.C. §103(a) as being unpatentable over Ulmer (U.S. Patent No. 5,776,674). Such rejections are respectfully traversed in part and overcome in part for the following reasons. Independent claim 24 now recites "generating a first spectrum from the spatially restrained first body, the first spectrum having a plurality of signals at differing wavelengths." As discussed above, Ulmer does not teach a plurality of signals at differing wavelengths. All the claimed elements of the claim 24 are not set forth in nor suggested by Ulmer and therefore claim 24 is not made obvious by the cited reference. Claims 25 and 27 depend from claim 24 and therefore they too are distinguished from Ulmer. For these reasons, Applicants respectfully request withdrawal of the rejection and allowance of claims 24-25 and 27.

Sixth Rejection under 35 U.S.C. §103

Claims 47-48 and 53 are rejected under 35 U.S.C. §103(a) as being unpatentable over Ulmer (U.S. Patent No. 5,776,674). Such rejections are respectfully traversed in part and overcome in part for the following reasons. Claims 47-48 and 53 all depend from independent claim 45 which has previously been distinguished from Ulmer above. Therefore, claims 47-48 and 53 are not obvious over Ulmer because the cited reference fails to teach or suggest all of the claim limitations. Applicants respectfully request withdrawal of the rejection and allowance of claims 47-48 and 53.

Allowable Subject Matter

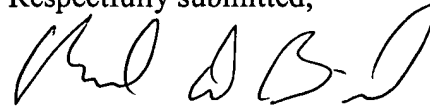
Claims 11, 32, 35-39 and 54 were objected to as being dependent upon a rejected based claim, but would be allowable if rewritten in independent form. Applicants have amended claims 11, 32, 35 and 54 so that they are in independent form and include all of the limitations of the base claim and any intervening claims. The claims objected to should now be in condition for allowance.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 650-326-2400.

Respectfully submitted,



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